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A macroscopic system of Einstein-Maxwell equations for a system of interacting particles with different masses

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Abstract

A macroscopic system of Einstein-Maxwell equations for systems of particles with different masses is derived up to the second order in the interaction. The dominant type of interaction in this system are electromagnetic interactions between particles (for example, a radiation-dominated cosmological plasma in the expanding universe before the moment of recombination). The results of [1], which can only be applied to systems of interacting particles with equal masses, are generalized. © 2004 MAIK "Nauka/Interperiodica".

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